CLINICAL EVALUATION OF THE USE OF DETOMIDINE HYDROCHLORIDE IN THE OVINE SPECIES

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The alpha-2 adrenergic agonist is class of drugs employed in the veterinary anesthetic routine due to the tranquilizing, sedative and muscle relaxant effects in animals. Detomidine hydrochloride is an alpha-2 adrenergic agonist commonly used in the equine species, although there are few studies about the use of this drug on other species. The purpose of this study was to describe the clinical effects of the use of detomidine hydrochloride in the ovine species and also, verify the availability of this drug in the ovine species. Eight sheep that were healthy, female gender, mixed breed and adults in the dry lactation period were used for this research. Detomidine hydrochloride was administered in the dose of 30 µg/kg via intramuscular injections. The following parameters: heart and respiratory rates, rectal temperature, ruminal movements, and evaluations of the degree of sedation, posture and lowering of the head; were measured before the administration of this drug, and after every 15 minutes until 120 minutes of observation were completed. Sternal decubitus was observed at 15 minutes after the administration of detomidine hydrochloride in all animals in this study. In the first 15 minutes, a decrease in heart and respiratory rates, and ruminal motility was noticed. After this period, a gradual increase in heart rate was detected, however persisting 33% lower of basal values at 120 minutes of observation. The respiratory rate and ruminal motility returned to the basal values at the end of experimental period. The rectal temperature decreased in the first 75 minutes, returning to the basal values at the end of the study. Lowering of the head was observed only in two sheep (25%), so it was not considered a typical sign of the effect of this drug in horses as. No significant adverse effects were identified during the experiment. Analogous to the bovine species, detomidine hydrochloride causes muscle relaxation and decubitus in the ovine species. The bradycardia, bradypnea, decrease in rectal temperature and ruminal motility observed after the administration of detomidine hydrochloride in ovine are also reported in other animal species. In terms of this experimental study, the results indicates that detomidine hydrochloride promotes sedative effect in ovine, without causing significant adverse effects, hence being recommended has a preanesthesic drug and tranquilizer in this species.

Keywords: Detomidine hydrochloride, alpha-2 adrenergic agonists, ovine.